Royal College of Surgeons
ADVANCING SURGICAL CARE

CORESS is a confidential reporting system for surgery. The purpose of CORESS is to promote safety in surgical practice, both within the NHS and in the independent sector.

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coress feedback

This edition of CORESS Feedback marks a milestone: publication of CORESS's 200th case. It is perhaps salutary that case number 200 relates to the most primal of surgical functions, namely safe handling of sharp instruments. Other cases represent the diversity of specialty contributions to CORESS reports.

We are grateful to those who have provided the material for these reports. The online reporting form is on our website (www.coress.org.uk), which also includes all previous Feedback reports. Published cases will be acknowledged by a 'Certificate of Contribution', which may be included in the contributor's record of continuing professional development.

Inadvertent diathermy use during colonoscopy (Ref 198)

A 70-year-old man with a family history of bowel cancer underwent a colonoscopy for rectal bleeding. Six adenomatous polyps were found in the distal sigmoid and rectum. The polyps were dealt with by combination of hot biopsy and snare excision. When a 16mm biopsy polyp was being removed by snare excision, cutting diathermy was inadvertently activated, by pressing the foot pedal for three separate bursts of two seconds.

The patient developed a postpolypectomy syndrome (abdominal pain due to inflammation in absence of full-thickness burn or perforation) and needed to be admitted to hospital for 48 hours but made a full recovery. It was suspected that the inadvertent application of the cutting current was responsible for this problem.

Reporter's comments

The two foot pedals on this machine are identical in size and shape, and are situated side-by-side within a common canopy. It is difficult to tell which pedal you are pressing without looking at them. The problem is compounded by the fact that this machine produces a continuous tone for both coagulation and cutting. The tones have only slight variation in pitch. While concentrating on looking at the screen to localise a polyp during endoscopy, you therefore have to depend entirely on sense of feel to locate the appropriate pedal.

This incident appears to be multifactorial but risks of using the wrong current could be reduced by separating coagulation and cutting pedals, and by designing them to have different shapes, which can be distinguished easily by the foot. Instead of having a tone of two different pitches, the machine could be designed so that a coagulation tone was continuous and a cutting tone interrupted.

CORESS comments

This is yet another case of inadvertent diathermy activation, a perennial problem. CORESS has collected a series of these cases to pass on to the Medicines and Healthcare products Regulatory Agency. A meeting with diathermy manufacturers is planned to look at how diathermy safety may be improved.

Biometry missing prior to anaesthesia for cataract (Ref 199)

A patient from another hospital attended for cataract surgery under general anaesthesia. As she had come from elsewhere, preoperative measurements for the lens implant (biometry) had not yet been undertaken. It was agreed that she should have biometry performed in the eye theatres, before anaesthesia. (Biometry needs to be done with the patient awake and sitting upright). This need was highlighted at the preoperative team briefing. Unfortunately, despite the World Health Organization (WHO) sign-in check, the patient was anaesthetised without having had this preoperative test. Biometry is needed to choose the correct strength of lens implant: I did not want to estimate and risk the patient requiring strong glasses for the rest of her life. We therefore woke her up, explained and apologised. We undertook the biometry and anaesthetised her again for surgery later the same day.

Reporter's comments

Unusual circumstances were involved in this case. The patient attended from another hospital and underwent general anaesthesia. However, there was no surgeon present during the sign-in check. The WHO surgical safety checklist for cataract surgery includes questions about the exact type of lens implant needed. The anaesthetist was expecting us to do the 'surgery specific' part of the WHO check once the patient was asleep. This case shows that it is too late to leave it until then!

CORESS comments

The new *National Safety Standards for Invasive Procedures* make it clear that the surgeon should be present at the sign-in check. For patients requiring general anaesthesia, the routine WHO time-out check is undertaken when the patient has already been anaesthetised and this occurs past the 'point of no return' for any part of the procedure requiring patient cooperation. The team briefing is a vital part of maintaining safety standards but it was not acted on in this instance. Organisational change must

embrace allowing time for necessary safety checks to be undertaken.

Best foot forward (Ref 200)

A scalpel, which the surgeon had placed on the patient's draped belly, fell off the table and penetrated the surgeon's foot.

Reporter's comments

Care should be taken when transferring and handling sharp instruments. The scalpel was not placed in a safe receptacle such as a kidney dish.

CORESS comments

Safe handling of sharps and surgical instruments is an essential competence in the craft of surgery, and it is formally addressed early on in training, in the intercollegiate *Basic Surgical Skills* course. Scalpels and sharp instruments should be retained and passed in a receptacle such as a kidney dish. Do not rely on a 'magnetic mat' to retain sharp instruments. If the passing of a sharp instrument from one member of the team to another is unavoidable, this should be done bunt end first.

Laryngeal mask mistaken for lymph node during biopsy (Ref 201)

While performing a cervical lymph node biopsy (marked preoperatively) in the neck of a patient, I dissected onto the gel-like non-inflatable cuff of the laryngeal mask in the supraglottic larynx. I was feeling for a rubbery node with my fingers and it transpired that what I ultimately palpated was the laryngeal mask (soft and rubbery). As the patient was thin, and the i-gel® (Intersurgical, Wokingham, UK) laryngeal mask was large and bulky, significant distortion of the normal anatomy had occurred.

The mucosal surface of the perforation was repaired and the outer layers were repaired to the skin. The patient was fed via a nasogastric tube until nasoendoscopy and a Gastrografin® (Bracco, Princeton, NJ, US) swallow test were normal, two weeks later.

Reporter's comments

I was not prepared for the anatomical distortion caused by the laryngeal mask. Deep layers in the neck are compressed and pushed laterally by a large laryngeal mask cuff, making them appear more lateral than expected.

CORESS comments

It is sometimes easy to become disorientated and 'goal focused' when trying to find a lymph node in difficult anatomical territory. If this happens, the surgeon should stop and try to orientate him or herself with respect to recognised landmarks. No biopsy should be undertaken blind without being aware of surrounding structures.

Retained central line (Ref 203)

A patient undergoing coronary artery bypass surgery had a multilumen central line and 14G single lumen line, both sited in the right internal jugular vein, removed on postoperative day 2. When the lines were taken out, it was noted that the 13cm 14G line had less than 1cm of remaining tubing attached to the external connector. The line appeared to have been severed, probably during placement of the multilumen line, which had been inserted using a Seldinger technique at the same location as the already sited 14G line. The introducer needle of the multilumen line most likely damaged the line already in place.

On urgent computed tomography, around 12cm of freely floating line was found situated in the superior vena cava and part way into the right atrium. The interventional radiology team eventually retrieved the foreign body. Fortunately, the patient made a good postoperative recovery and the only additional harm suffered was the necessary interventional radiology access.

Reporter's comments

This case occurred because of stacking a second line on a line placed previously at the same site. The risk of this eventuality could be reduced by improved technique in placing multiple lines, either by using two guidewires (which should both be in place prior to line insertion) or by placing lines at distant points. Use of ultrasonography in line placement is recommended.

CORESS comments

The CORESS Advisory Committee agreed with the reporter's comments.